

Please amend the application as follows:

In the specification:

Replace the **BRIEF DESCRIPTION OF THE FIGURES** section on page 6 with the new section set forth below.

BRIEF DESCRIPTION OF THE FIGURES

Figures 1 and 12 shows show three-dimensional side-perspective views of the stent.

Figures 2 and 13 shows show close-up side-perspective views of the stents shown in Figures 1 and 12.

Figures 3 and 14 shows show an enlarged side-perspective view of several zigzag elements.

Figures 4 and 15 shows show a flattened perspective of the stent where the tube of the stent has been cut down the longitudinal axis and the stent laid flat.

Figures 5 and 16 shows show the scaffolding lattice of the stent in a flattened perspective where the tube of the stent has been cut down the longitudinal axis and the stent laid flat.

Figures 6 and 17 shows show a three-dimensional side-perspective of the stent illustrating the scaffolding lattice.

Figures 7 and 18 illustrates illustrate the closed circumferential element and the transition zone.

Figure 8 shows a three-dimensional perspective of the scaffolding lattice of the stent formed by the two types of helices.

Figure 9 shows a cutaway perspective of the stent in Figure 8. Figure 10 illustrates how the stent contracts along the longitudinal axis.

Figure 11 illustrates how the stent expands along the longitudinal axis.

In the **DETAILED DESCRIPTION OF THE INVENTION** section, replace the six consecutive paragraphs running from page 8, line 12 through page 11, line 16 with the six amended paragraphs set forth below.

Figure 12 shows a three-dimensional side-perspective view of the claimed stent. One part of the scaffolding lattice is formed from a first type of helix composed of a plurality of zigzag elements. The features of this type of helix are shown as numbers 1-33. Each number represents one 360-degree turn of the helix formed by the zigzag elements. Adjacent turns of the helix are formed by the zigzag elements. The following lists the pairs of adjacent turns illustrated in Figure 12: 1-2, 2-3, 3-4, 4-5, 5-6, 6-7, 7-8, 8-9, 9-10, 10-11, 11-12, 12-13, 13-14,

14-15, 15-16, 16-17, 17-18, 18-19, 19-20, 20-21, 21-22, 22-23, 23-24, 24-25, 25-26, 26-27, 27-28, 28-29, 29-30, 30-31, 31-32, 32-33, and 33-34. Number 34 represents the lumen of a blood vessel where the stent has been placed.

The second type of helix is formed by the connection elements. Adjacent turns of the helix formed by the zigzag elements are connected by at least one connection element. These connection elements are illustrated in Figure 2 13, which shows a close-up side-perspective view of the stent illustrated in Figure 12. Adjacent turns of the helix are formed by the zigzag elements and are listed as follows in Figure 2 13: 22-23, 23-24, 24-25 and 25-26. The adjacent turns are connected by connection elements. For example, adjacent turns 22 and 23 are connected by connection elements 27 and 31; adjacent turns 24 and 25 are connected by connection elements 28 and 30; and adjacent elements 25 and 26 are connected by connection element 29. The number of connection elements connecting two adjacent turns of the helix formed by the zigzag elements varies from two in each 360-degree turn of the first type of helix to four in each 360-degree turn. In some embodiments, the number of connection elements may be greater than four. In all embodiments, the number of connection elements connecting adjacent turns of the helix is less than the number of zigzags in one 360-degree turn of the helix.

Zigzag elements are formed by ascending and descending arms having a junction point. This is illustrated in Figure 3 14, which shows an enlarged side-perspective view of several zigzag elements. The ascending and descending arms of one zigzag element in one turn of the helix formed by the zigzag elements are shown as 32 and 33, respectively, and the ascending and descending arms of a zigzag in an adjacent turn of the helix are shown as 35 and 36, respectively. Each of the zigzag elements is connected at a junction point, 34 and 37, by a connection element 38.

Thus, as illustrated by Figures 12 through 3 14, the scaffolding lattice of the stent is formed by two different types of helices. The first type of helix is formed from the zigzag elements. The second type of helix is formed by the connection elements. This type of helix is further illustrated in Figure 4 15, which shows a flattened perspective of the stent where the tube of the stent has been cut down the longitudinal axis of the tube and laid flat. Two helical elements formed by the connective elements 39 and 40 are shown by highlighting in Figure 4 15. The helical element formed by the connection elements comprises in series a connection element 41 linked directly to the descending 42, ascending 43 and descending 44 arms of the zigzag elements. The descending arm 44 is then linked to connection element 45 which in turn is linked to the

descending 46, ascending 47 and descending 48 arms of the zigzag elements. This pattern is repeated throughout the body of the stent forming the second type of helix. The number of helices formed by the connection elements is determined by the number of connection elements connecting adjacent turns. The flexibility of the stent in a compressed as well as in a deployed state may be altered by varying the number of connection elements in each 360-degree turn of the helix formed by the zigzag elements. In general, the fewer the number of connection elements in each 360-degree turn of the helix formed by the zigzag elements the more flexible the stent and conversely the greater the number of connection elements in each 360-degree turn of the helix formed by the zigzag elements, the more rigid the stent. In contrast, the stent described in U.S. Patent No. 6,042,597 to Kveen et al. has connection elements connecting every peak in adjacent undulations rendering it comparatively rigid.

In Figure 5 16, the scaffolding lattice is illustrated in a flattened perspective where the tube of the stent has been cut down the longitudinal axis and the stent laid flat. The figure shows only a portion of the body of the stent. The helix formed by the zigzag elements is shown as 49-58 and the helix formed by the connection elements in series with the zigzag elements is shown as 59-63. The helix formed by the zigzag elements 49-58 proceeds circumferentially in an opposite direction along the

longitudinal axis of the stent 64 from the helix formed by the connection elements in series with the zigzag elements 59-63. The scaffolding lattice formed by the two different types of helices is further illustrated in Figure 6 17, which shows a three-dimensional side perspective of the stent. The helix formed by the plurality of zigzag elements is shown as 65-75. The helix formed by the connection elements in series with the zigzag elements is shown as 76-80. Together, the two different types of helices form the scaffolding lattice.

The ends of the stent may be formed by a closed circumferential element 81 composed of a plurality of zigzags linked by a plurality of connection elements 90-92 to a transition zone 82. The closed circumferential element and the transition zone are illustrated in Figure 7 18. The transition zone 82 is formed by a plurality of zigzags which form a closed loop at one end 89 and connect to the helix formed by the continuous zigzags 83-87 at the other end 88. The two ends of the zigzag elements forming the transition zone are separated by at least one 360-degree turn of the helix formed by the zigzag elements. The amplitude of the zigzags forming the transition zone increases as the zigzags proceed circumferentially from the end forming the closed loop 89 to the end connected to the first type of helix 88. The closed circular circumferential element

may be radiopaque as described in U.S. Patent No. 6,022,374 to Imran, incorporated herein in its entirety by reference.